

# Exhibit 3

UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION

NORDIC INTERACTIVE  
TECHNOLOGIES LLC,

Plaintiff,

v.

SAMSUNG ELECTRONICS CO., LTD. and  
SAMSUNG ELECTRONICS AMERICA,  
INC.,

Defendants.

Case No.: 6:20-CV-00064 (ADA)

Judge Alan D. Albright

**DECLARATION OF RICHARD D. GITLIN IN SUPPORT OF  
NORDIC INTERACTIVE TECHNOLOGIES LLC'S OPENING CLAIM  
CONSTRUCTION BRIEF**

I, Richard D. Gitlin, declare as follows:

1. I have been retained by counsel for Nordic Interactive Technologies LLC, to provide opinions and testimony in support Nordic's Claim Construction brief. If called as a witness, I could and would testify as follows:

**I. Qualifications**

2. I hold a Doctorate in Electrical Engineering from Columbia University and then spent 32 years at Bell Labs retiring as a Senior Vice President. I am currently a Distinguished University Professor, Emeritus and a courtesy Professor in the Institute for Advanced Discovery & Innovation at the University of South Florida, where I worked for 12 years after retiring from Bell Labs.

3. A more detailed account of my work experience and qualifications are listed in my Curriculum Vitae, attached as Exhibit 1 to this Declaration. The rate being charged for my services is \$675 per hour. It is not contingent upon the outcome of this case.

4. I considered the following materials in reaching my opinions in this declaration:

- a. U.S. Patent No. 6,345,095 (“the ’095 Patent”) (attached as Exhibit 2 to this Declaration);
- b. U.S. Patent No. 7,590,097 (“the ’097 Patent) (attached as Exhibit 3 to this Declaration);
- c. The prosecution history of the ’095 Patent in the U.S. Patent Office (publicly available at USPTO.gov under Public PAIR);
- d. The prosecution history of the ’097 Patent in the U.S. Patent Office (publicly available at USPTO.gov under Public PAIR); and
- e. The referenced extrinsic evidence cited herein and attached as an Exhibit to this Declaration (Excerpts from Microsoft Computer Dictionary are attached as Exhibit 4).

## **II. Assignment**

5. I have been asked to provide opinions as to the appropriate level of ordinary skill in the art pertaining to the ’095 Patent, and as to the appropriate construction of a specific term in the asserted claims of the ’095 Patent. In particular, I have been asked to provide an opinion as to the appropriate construction of the following term in the ’095 Patent:

- a. “call initiation signals” (Claim 16)

6. I have been asked to provide opinions as to the appropriate level of ordinary skill in the art pertaining to the ’097 Patent, and as to the appropriate construction of certain terms in the asserted claims of the ’097 Patent. In particular, I have been asked to provide an opinion as to the appropriate construction of the following five claim terms:

- a. “middleware software” (Claim 19);
- b. “middleware layer” / “the middleware layer” (Claims 20 and 21);

## **III. Summary of Opinions**

7. For the reasons set forth below, it is my opinion that a person of ordinary skill in the art, based on the intrinsic record and extrinsic evidence where relevant, would understand each of the claim terms to have the meanings that Nordic has proposed, and would not understand the claim terms to have the meanings that Samsung has proposed. Specifically, a

person of ordinary skill in the art would understand the disputed claim terms to have the following meanings:

The '095 Patent:

<u>Claim term</u>	<u>Correct Construction</u>
“call initiation signals”	Plain and ordinary meaning or part of a telephone number

The '097 Patent:

<u>Claim term</u>	<u>Correct Construction</u>
“middleware software”	Software providing discovery of applications and/or services
“middleware layer” / “the middleware layer”	Software layer that includes middleware software

#### **IV. Relevant Legal Standards**

8. I have been informed by counsel for Nordic that a patent is a fully integrated written instrument subject to a presumption of validity. I further have been informed that by statute, a patent must provide a written description of the invention that will enable one of ordinary skill in the art to make and use it. The written description is often referred to as the specification of the patent. The patent concludes with one or more claims which define the patentee’s enforceable rights.

9. I have been informed by counsel that claim construction is the process by which the meaning of a claim is determined. To ascertain the scope and meaning of a claim, courts may consider the claim language, the specification, the prosecution history and relevant extrinsic evidence, such as expert testimony, treatises, and dictionaries.

10. I have been informed by counsel that the starting point in any claim construction is the language of the claims themselves. I understand that claim terms are generally given their

ordinary and customary meaning and that the ordinary and customary meaning of a claim term is the meaning that the terms would have to a person of ordinary skill in the art in question at the time of the inventions, i.e., the effective filing date of the patent application.

11. I also have been informed by counsel for Nordic that while the claims should be interpreted in view of the specification, it is improper to limit the claims to the specific examples set forth in the specification. I understand that claims scope may only be limited to a specific embodiment when there is a disavowal of broader claim scope through an expression of manifest exclusion or restriction representing a clear disavowal of claim scope.

12. I understand that Samsung has asserted that one of the claim terms, “middleware layer” / “the middleware layer,” is indefinite. I have been informed by counsel that a claim term is definite if, viewed in light of the specification and prosecution history, it informs those skilled in the art about the scope of the invention with reasonable certainty.

## **V. Technology Background**

13. The '095 Patent is titled Telephone Number Area Code Preprocessor. The '095 patent fulfills “a need for subscriber aids that will permit the subscriber to choose conveniently and efficiently the most appropriate area code by providing the subscriber with an analysis of any telephone number.” '095 Patent at 2:37-40. Specifically, the '095 Patent addressed the subscribers need by providing an invention that relates to the selection of a telephone number when the subscriber does not know the full-length telephone number of a called party.

14. The '095 Patent introduced a method for processing telephone numbers by monitoring the subscriber’s (calling party) call initiation signals, receiving called party information responsive to that monitoring, producing a list of telephone numbers responsive to the received called party information, and accordingly, selecting a target telephone number from the list of telephone numbers in a manner that is responsive to the producing of the list of telephone numbers.

15. The '097 is titled Device Detection and Service Discovery System and Method for a Mobile Ad Hoc Communications Network. The '097 Patent fulfilled the need for “[a] protocol [that] does not require a human user to manually initiate device detection to find the counterpart application or other resource...” while avoiding excessive power consumption. *See, e.g.*, '097 Patent at 2:43-46 and 2:57-64.

16. The '097 Patent introduced a method for “conducting an inquiry of the mobile ad hoc communications network to discover nearby devices” before a connection is established between devices such that “if the inquiry indicates that the nearby devices may include a middleware layer, the method further comprises creating a connection to each of the nearby devices and confirming whether each of the nearby devices include the middleware layer.” *Id.* at 3:7-13. And further, “for each of the nearby devices that include the middleware layer, the method further comprises executing the middleware layer to perform application and service discovery, and to launch applications and services.” *Id.* at 3:13-17.

## **VI. Level of Ordinary Skill in the Art**

17. It is my opinion that based on my review of the '095 Patent, its file history, and my experience, that a person having ordinary skill in the art (a “POSITA”) is one who would have, at the time of the patent, a 4-year degree in computer science or computer or electrical engineering along with 2 years of post-graduate work experience with telecommunications. I understand from counsel that the parties agreed to this definition. My opinions provided herein are from the perspective of one having ordinary skill in the art. I have the requisite education and experience under this definition to provide my opinion herein.

18. It is my opinion that based on my review of the '097 Patent, its file history, and my experience, that a POSITA is one who would have, at the time of the patent, would have a B.S. in computer science or electrical engineering along with 2 years of experience in mobile ad hoc networking. I understand from counsel that the parties agreed to this definition. My

opinions provided herein are from the perspective of one having ordinary skill in the art. I have the requisite education and experience under this definition to provide my opinion herein.

## **VII. Claim Construction**

### **A. The Claim Term “call initiation signals” in the ’095 Patent**

19. The term “call initiation signals” appears in claim 16 of the asserted claims of the ’095 Patent. Claim 16 describes a method for processing telephone numbers that includes a step of “monitoring call initiation signals from a calling party.”

20. It is my opinion that the term “call initiation signals” is readily understandable to one of ordinary skill in the art such that the plain and ordinary meaning of this term sufficiently defines the term, such that if a construction is required, a person of ordinary skill in the art would understand the term “call initiation signals” to mean “part of a telephone number.”

21. The ’095 Patent defines examples of call initiation signals as being any of the following: “a full telephone number”, “a telephone number without an area code”, “a subscriber number without an area code or an exchange code.” ’095 Patent at 5:4-9. Accordingly, a POSITA would understand that the device monitors for a calling party to enter any part of a telephone number and in turn, after receiving the called party information, the device produces a list of telephone numbers that contain at least the digits input by the calling party.

22. I understand that Samsung has proposed that the term “call initiation signals” should be construed as “any signal indicating that a calling party is going to place a telephone call.” It is my opinion that a person of ordinary skill in the art, reading the claims in view of the specification and file history, would not understand the claim term “call initiation signals” to be broadly construed as “any signal indicating that a calling party is going to place a telephone call.”

23. It is my opinion that Samsung has taken a very broad construction of the term “call initiation signal.” It is my opinion that Samsung’s broad construction of the term “call initiation signals” neglects the specificity described in the asserted claims. The monitoring step occurs initially to monitor for “call initiation signals” and responsive to this, called party information is received. A POSITA would understand that the device monitors for a calling party to enter any part of a telephone number and in turn, after receiving the called party information, the device produces a list of telephone numbers that contain at least the digits input by the calling party.

**B. The Claim Term “middleware software” in the ’097 Patent**

24. The term “middleware software” appears in claim 19 of the asserted claims. Claim 19 recites a method for performing device detection and service discovery in a mobile ad hoc communications network that includes steps of “determining, whether a discovered nearby device provides the middleware software configured for providing application and service discovery”, “when the discovered nearby device produces an indication that it an indication that it may include the middleware software: … confirming whether said nearby device includes the middleware software by requesting corresponding information from said nearby device via the wireless short-range communication connection,” and “when said nearby device includes the middleware software: executing the middleware software to perform application and service discovery with said nearby device.”

25. It is my opinion that one of ordinary skill in the art would understand the term “middleware software” to mean “software providing discovery of applications and/or services.”

26. Nordic’s construction that this term should be defined as “software providing discovery of applications and/or services” is supported by the claim language and the

specification of the '097 Patent. The '097 Patent specifies that “middleware software provid[es] advanced application and service discovery and execution.” '097 Patent at 10:8-10.

27. Fig. 5 of the '097 Patent also demonstrates that Nordic's construction is correct. It is reproduced below with highlighting added to the figure excerpted from the '097 Patent.

**Figure 5**

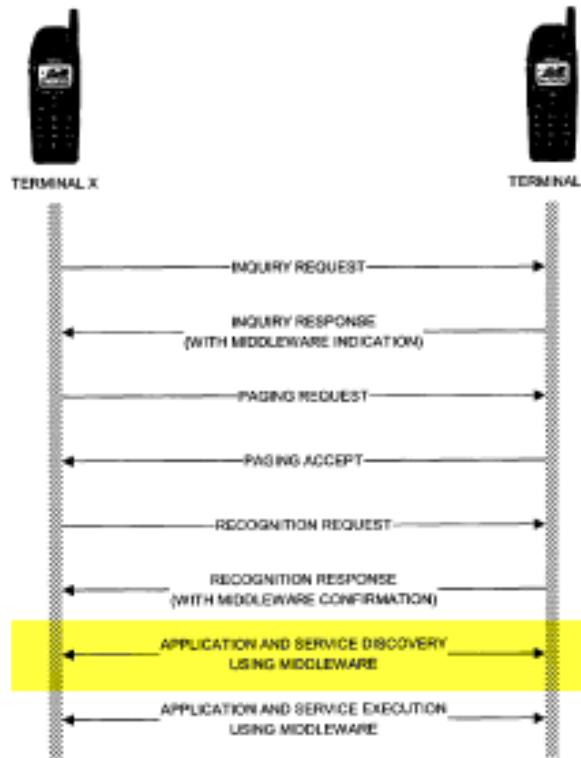


Fig. 5 of the '097 Patent

28. Fig. 5 shows a “a flow diagram of an embodiment of a process that illustrates the message flow during establishment of a communication session between terminal X and terminal Y in a mobile ad hoc communications network.” '097 Patent 4:4-7. Fig. 5 demonstrates that one of the steps in the message flow disclosed in the '097 Patent is “APPLICATION AND SERVICE DISCOVERY USING MIDDLEWARE.” This additionally

supports Nordic's construction of "software providing discovery of applications and/or services."

29. It is my opinion that Nordic's proposed construction of "software providing discovery of applications and/or services" is consistent with extrinsic evidence, such as dictionary definitions. I examined Exhibit 4 (Microsoft Computer Dictionary) at NORDIC001264-NORDIC001265. I find that this reference defines "middleware" to be "Software that sits between two or more types of software and translates information between them. Middleware can cover a broad spectrum of software and generally sits between an application and an operating system, a network operating system, or a database management system." Exhibit 4 (Microsoft Computer Dictionary) at NORDIC001264-NORDIC001265. This is consistent with and supports Nordic's proposed construction for "middleware software."

30. I understand from counsel that Samsung's proposed claim construction is "a software layer with an API that negotiates the communication between two applications to help an application find a counterpart application with the correct role."

31. Upon reading claim 19, I do not see the terms "API", "counterpart application", "correct role," or any combinations of the individual terms used in Samsung's construction. Samsung's construction imports "preferred embodiments" from the '097 Patent specification to create this construction. As I explained above, I have been informed by counsel that it is improper to limit the claims to the specific examples set forth in the specification. I understand that claim scope may only be limited to a specific embodiment when there is a disavowal of broader claim scope through an expression of manifest exclusion or restriction representing a clear disavowal of claim scope. Reading the '097 Patent, I find no such expression of manifest exclusion or restriction representing a clear disavowal of claim scope.

32. It is my opinion that Samsung's proposed construction for "middleware software" improperly narrows the construction by importing specific embodiments from the specification of the '097 Patent, when one of ordinary skill in the art reading the claim language and the specification as a whole would not support Samsung's proposed construction.

**C. The Claim Term "middleware layer" / "the middleware layer" in the '097 Patent**

33. The term "middleware layer" / "the middleware layer" appears in claims 20-21 of the asserted claims. Claim 20 recites that "the middleware layer includes a service discovery protocol and at least one computer program, each computer program comprising at least one sequence of operational instructions. Claim 21 recites that "when said at least one nearby device includes the middleware layer, the method further comprises: executing the middleware layer to launch applications and services."

34. It is my opinion that one of ordinary skill in the art would construe the term "middleware layer" / "the middleware layer" to mean "software layer that includes middleware software."

35. The term "middleware layer" / "the middleware layer" is used in the specification to mean a software layer that includes middleware software. The '097 Patent specifies that "the middleware layer includes dedicated middleware software providing advanced application and service discovery and execution." '097 Patent at 10:8-10.

36. I understand that Samsung has construed the term "middleware layer" / "the middleware layer" to be indefinite for lack of antecedent basis. It is my opinion, as a person of skill in the art, that the term "middleware layer" / "the middleware layer" is understood to be a "software layer that includes middleware software" when read in light of the rest of the specification, despite the lack of antecedent basis. It is my opinion, therefore, that "the middleware layer" is not indefinite for the foregoing reasons.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 29th day of October, 2020, at La Jolla, CA.

A handwritten signature in black ink that reads "Richard D. Gitlin". The signature is fluid and cursive, with "Richard" and "Gitlin" being the most distinct parts.

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**Richard D. Gitlin, Sc.D.**